AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-4. (canceled)

5. (currently amended) An information recording apparatus, comprising:

a recording device for recording record information by irradiating laser light onto an information recording medium, ~~comprising:~~ the information recording medium comprised of i) a recording area to record therein record information by irradiating laser light thereto[[;]] and ii) a recording control area ~~to record therein~~ where control information for correction-controlling a laser power in accordance with a recording position in said recording area is recorded;

a correcting device for correcting the control information recorded in said recording control area of said information recording medium, on the basis of a result of running OPC (Optimum Power Calibration) which ~~is performed in parallel with the recording of the record information~~ corrects the laser power according to a power of a reflected laser light on a recording surface of the information recording medium while

irradiating the laser light for the recording of the record information; and

an optimizing device for optimizing [[a]] the laser power, on the basis of ~~at least one of the control information recorded in said recording control area of said information recording medium and~~ the control information corrected by said correcting device.

6. (Original) The information recording apparatus according to claim 5, wherein said optimizing device roughly estimates the control information at a recording position for which the corresponding control information does not exist, on the basis of the control information recorded in said recording control area.

7. (currently amended) An information recording apparatus, comprising:

a first recording device for irradiating laser light onto an information recording medium and for recording record information onto said information recording medium;

a control information generating device for obtaining an optimum laser power according to a recording position of said information recording medium and for generating control information which indicates an association between information

which represents the recording position and information which represents the optimum laser power;

a correcting device for correcting the control information generated by said control information generating device, on the basis of a result of running OPC (Optimum Power Calibration) which ~~is performed in parallel with the recording of the record information~~ corrects a laser power according to a power of a reflected laser light on a recording surface of the information recording medium while irradiating the laser light for the recording of the record information;

a second recording device for recording at least one of the control information generated by said control information generating device and the control information corrected by said correcting device onto said information recording medium; and

a controlling device for controlling [[a]] the laser power of the laser light irradiated onto said information recording medium, on the basis of the control information recorded by said second recording device.

8. (Original) The information recording apparatus according to claim 7, wherein said second recording device records the control information generated by said control information generating device, onto said information recording medium.

9. (Original) The information recording apparatus according to claim 7, wherein said control information generating device generates the control information, on the basis of a calibration value of a laser power obtained by performing running OPC (Optimum Recording Calibration).

10. (Original) The information recording apparatus according to claim 7, wherein said control information generating device generates the control information corresponding to each predetermined area of said information recording medium.

11. (Original) The information recording apparatus according to claim 7, wherein said control information generating device generates the control information corresponding to a recording linear velocity of said information recording medium.

12. (Original) The information recording apparatus according to claim 7, wherein

said information recording medium comprises a plurality of recording layers, and

said controlling device controls the laser power irradiated to another recording layer, on the basis of the control information obtained in one recording layer, in a case in which a target, to which said recording device performs recording

operation, is changed from the one recording layer to the another recording layer out of the plurality of recording layers.

13. (Original) The information recording apparatus according to claim 7, wherein

said information recording medium comprises a plurality of recording layers, and

said control information generating device generates the control information in another recording layer, on the basis of the control information obtained in one recording layer, in a case in which a target, to which said recording device performs recording operation, is changed from the one recording layer to the another recording layer out of the plurality of recording layers.

14. (currently amended) An information recording method, comprising:

a recording process of recording record information by irradiating laser light onto an information recording medium, ~~comprising:~~ the information recording medium comprised of i) a recording area to record therein record information by irradiating laser light thereto[[;]] and ii) a recording control area ~~to record therein~~ where control information for correction-controlling a laser power in accordance with a recording position in said recording area is recorded;

a correcting process of correcting the control information recorded in said recording control area of said information recording medium, on the basis of a result of running OPC (Optimum Power Calibration) which ~~is performed in parallel with the recording of the record information~~ corrects the laser power according to a power of a reflected laser light on a recording surface of the information recording medium while irradiating the laser light for the recording of the record information; and

an optimizing process of optimizing [[a]] the laser power, on the basis of ~~at least one of the control information recorded in said recording control area of said information recording medium and~~ the control information corrected in said correcting process.

15. (currently amended) An information recording method, comprising:

a first recording process of irradiating laser light onto an information recording medium and of recording record information onto said information recording medium;

a control information generating process of obtaining an optimum laser power according to a recording position of said information recording medium and of generating control information which indicates an association between information

which represents the recording position and information which represents the optimum laser power;

a correcting process of correcting the control information generated in said control information generating process, on the basis of a result of running OPC (Optimum Power Calibration) which ~~is performed in parallel with the recording of the record information~~ corrects a laser power according to a power of a reflected laser light on a recording surface of the information recording medium while irradiating the laser light for the recording of the record information;

a second recording process of recording at least one of the control information generated in said control information generating process and the control information corrected in said correcting process onto said information recording medium; and

a controlling process of controlling [[a]] the laser power of the laser light irradiated onto said information recording medium, on the basis of the control information recorded in said second recording process.

16. (currently amended) An information recording / reproducing apparatus, comprising:

an information recording apparatus, ~~comprising:~~ comprised of

a recording device for recording record information by irradiating laser light onto an information recording medium, ~~comprising:~~ the information recording medium comprised of i) a recording area to record therein record information by irradiating laser light thereto[[;]] and ii) a recording control area ~~to record therein~~ where control information for correction-controlling a laser power in accordance with a recording position in said recording area[[;]] is recorded,

a correcting device for correcting the control information recorded in said recording control area of said information recording medium, on the basis of a result of running OPC (Optimum Power Calibration) which ~~is performed in parallel with the recording of the record information;~~ corrects the laser power according to a power of a reflected laser light on a recording surface of the information recording medium while irradiating the laser light for the recording of the record information, and

an optimizing device for optimizing [[a]] the laser power, on the basis of ~~at least one of the control information recorded in said recording control area of said information recording medium and~~ the control information corrected by said correcting device; and

a reproducing device for reproducing the record information recorded on said information recording medium.

17. (currently amended) An information recording / reproducing apparatus, comprising:

an information recording apparatus, ~~comprising:~~ comprised of

a first recording device for irradiating laser light onto an information recording medium and for recording record information onto said information recording medium[[;]],

a control information generating device for obtaining an optimum laser power according to a recording position of said information recording medium and for generating control information which indicates an association between information which represents the recording position and information which represents the optimum laser power[[;]],

a correcting device for correcting the control information generated by said control information generating device, on the basis of a result of running OPC (Optimum Power Calibration) which ~~is performed in parallel with the recording of the record information;~~ corrects a laser power according to a power of a reflected laser light on a recording surface of the information recording medium while irradiating the laser light for the recording of the record information,

a second recording device for recording at least one of the control information generated by said control information generating device and the control information corrected by said

correcting device onto said information recording medium[[;]], and

a controlling device for controlling [[a]] the laser power of the laser light irradiated onto said information recording medium, on the basis of the control information recorded by said second recording device; and

a reproducing device for reproducing the record information recorded on said information recording medium.

18. (currently amended) An information recording / reproducing method, comprising:

an information recording method, ~~comprising:~~ comprised of

a recording process of recording record information by irradiating laser light onto an information recording medium, ~~comprising:~~ the information recording medium comprised of i) a recording area to record therein record information by irradiating laser light thereto[[;]] ii) and a recording control area ~~to record therein~~ where control information for correction-controlling a laser power in accordance with a recording position in said recording area[[;]] is recorded,

a correcting process of correcting the control information recorded in said recording control area of said information recording medium, on the basis of a result of running OPC (Optimum Power Calibration)[[;]] which ~~is performed in~~

~~parallel with the recording of the record information~~ corrects the laser power according to a power of a reflected laser light on a recording surface of the information recording medium while irradiating the laser light for the recording of the record information, and

an optimizing process of optimizing [[a]] the laser power, on the basis of ~~at least one of the control information recorded in said recording control area of said information recording medium and~~ the control information corrected in said correcting process; and

a reproducing process of reproducing the record information recorded on said information recording medium.

19. (currently amended) An information recording / reproducing method, comprising:

an information recording method, ~~comprising:~~ comprised of

a first recording process of irradiating laser light onto an information recording medium and of recording record information onto said information recording medium[[;]],

a control information generating process of obtaining an optimum laser power according to a recording position of said information recording medium and of generating control information which indicates an association between information

which represents the recording position and information which represents the optimum laser power[[;]],

a correcting process of correcting the control information generated in said control information generating process, on the basis of a result of running OPC (Optimum Power Calibration) which ~~is performed in parallel with the recording of the record information;~~ corrects a laser power according to a power of a reflected laser light on a recording surface of the information recording medium while irradiating the laser light for the recording of the record information,

a second recording process of recording at least one of the control information generated in said control information generating process and the control information corrected in said correcting process onto said information recording medium[[;]], and

a controlling process of controlling [[a]] the laser power of the laser light irradiated onto said information recording medium, on the basis of the control information recorded in said second recording process; and

a reproducing process of reproducing the record information recorded on said information recording medium.

20. (currently amended) A computer program product in a computer-readable medium for tangibly embodying a program of instructions executable by a computer provided for an information

recording apparatus, to make the computer function as at least one portion of a recording device, a correcting device, and ~~said~~ an optimizing device, said information recording apparatus comprising:

said recording device for recording record information by irradiating laser light onto an information recording medium, ~~comprising:~~ the information recording medium comprised of i) a recording area to record therein record information by irradiating laser light thereto[[;]] and ii) a recording control area ~~to record therein~~ where control information for correction-controlling a laser power in accordance with a recording position in said recording area is recorded;

said correcting device for correcting the control information recorded in said recording control area of said information recording medium, on the basis of a result of running OPC (Optimum Power Calibration) which ~~is performed in parallel with the recording of the record information~~ corrects the laser power according to a power of a reflected laser light on a recording surface of the information recording medium while irradiating the laser light for the recording of the record information; and

said optimizing device for optimizing [[a]] the laser power, on the basis of at least one of the control information recorded in said recording control area of said information

recording medium and the control information corrected by said correcting device.

21. (currently amended) A computer program product in a computer-readable medium for tangibly embodying a program of instructions executable by a computer provided for an information recording apparatus, said computer program making the computer function as at least one portion of a first recording device, a control information generating device, a correcting device, a second recording device, and a controlling device, said information recording apparatus comprising:

said first recording device for irradiating laser light onto an information recording medium and for recording record information onto said information recording medium;

said control information generating device for obtaining an optimum laser power according to a recording position of said information recording medium and for generating control information which indicates an association between information which represents the recording position and information which represents the optimum laser power;

said correcting device for correcting the control information generated by said control information generating device, on the basis of a result of running OPC (Optimum Power Calibration) which ~~is performed in parallel with the recording of the record information~~ corrects a laser power according to a

power of a reflected laser light on a recording surface of the information recording medium while irradiating the laser light for the recording of the record information;

said second recording device for recording at least one of the control information generated by said control information generating device and the control information corrected by said correcting device onto said information recording medium; and

said controlling device for controlling [[a]] the laser power of the laser light irradiated onto said information recording medium, on the basis of the control information recorded by said second recording device.

22. (currently amended) A computer program product in a computer-readable medium for tangibly embodying a program of instructions executable by a computer provided for the information recording / reproducing apparatus, said computer program making the computer function as at least one portion of an information recording apparatus and a reproducing device, said information recording / reproducing apparatus comprising:

said information recording apparatus, ~~comprising:~~ comprised of

a recording device for recording record information by irradiating laser light onto an information recording medium, ~~comprising:~~ the information recording medium comprised of i) a recording area to record therein record information by

irradiating laser light thereto[[;]] and ii) a recording control area ~~to record therein~~ where control information for correction-controlling a laser power in accordance with a recording position in said recording area[[;]] is recorded,

a correcting device for correcting the control information recorded in said recording control area of said information recording medium, on the basis of a result of running OPC (Optimum Power Calibration) which ~~is performed in parallel with the recording of the record information;~~ corrects the laser power according to a power of a reflected laser light on a recording surface of the information recording medium while irradiating the laser light for the recording of the record information, and

an optimizing device for optimizing [[a]] the laser power, on the basis of ~~at least one of the control information recorded in said recording control area of said information recording medium and~~ the control information corrected by said correcting device; and

said reproducing device for reproducing the record information recorded on said information recording medium.

23. (currently amended) A computer program product in a computer-readable medium for tangibly embodying a program of instructions executable by a computer provided for the information recording / reproducing apparatus, said computer

program making the computer function as at least one portion of an information recording apparatus and a reproducing device, said information recording / reproducing apparatus comprising:

said information recording apparatus, ~~comprising:~~ comprised of

a first recording device for irradiating laser light onto an information recording medium and for recording record information onto said information recording medium[[;]],

a control information generating device for obtaining an optimum laser power according to a recording position of said information recording medium and for generating control information which indicates an association between information which represents the recording position and information which represents the optimum laser power[[;]],

a correcting device for correcting the control information generated by said control information generating device, on the basis of a result of running OPC (Optimum Power Calibration) which ~~is performed in parallel with the recording of the record information;~~ corrects a laser power according to a power of a reflected laser light on a recording surface of the information recording medium while irradiating the laser light for the recording of the record information,

a second recording device for recording at least one of the control information generated by said control information generating device and the control information corrected by said

correcting device onto said information recording medium[[;]], and

a controlling device for controlling [[a]] the laser power of the laser light irradiated onto said information recording medium, on the basis of the control information recorded by said second recording device; and

said reproducing device for reproducing the record information recorded on said information recording medium.